

Clean Copy of Amended Claims

1. (Currently amended) A method of mounting a retaining ring on a rotating electric starter shaft of an electric starter drive assembly that includes a self-disengaging coupling device acting between a bushing and a pinion, the bushing and the shaft having splines that cooperate, the shaft having a first rear stop and a second front stop spaced apart thereon to define a course along which the starter drive assembly slides between a rest and a working position, said first rear stop being formed by an elastic retaining ring inserted into an annular positioning groove of the shaft, the method comprising:

mounting the retaining ring on an axial segment of the shaft in an accessible mounting area between the positioning groove and the splines; and

moving the starter drive assembly axially toward the rest position so as to move the retaining ring along the axial segment of the shaft to the positioning groove, which is located in a service area with no radial access.

2. (Currently amended) A mounting method according to claim 1, wherein the service area is disposed beneath a protrusion of a speed reducer.

3. (Currently amended) A mounting method according to claim 1, wherein a shaft segment with a cross section that increases toward the positioning groove is used.

4. (Currently amended) An electric starter for a motor vehicle equipped with a starter drive assembly comprising:

a bushing;

a pinion;

a self-disengaging coupling device between the bushing and the pinion; and

a shaft having a first rear stop and a second front stop spaced apart thereon to define a course along which the starter drive assembly slides between a rest and a working position, the first rear stop being formed by an elastic retaining ring inserted into an annular positioning groove of the shaft,

wherein the positioning groove is placed in a private service area with radial access, and below a protrusion from a speed reducer enclosed by a housing of the electric motor.

5. (Currently amended) An electric starter according to claim 4, wherein the positioning groove has a front face configured to axially block the retaining ring in the service area.
6. (Currently amended) An electric starter according to claim 5, wherein the positioning groove is delimited opposite the front face by an annular stop face, the width of which is greater than that of the front face.
7. (Currently amended) An electric starter according to claim 6, wherein the axial length of the groove separating the front face from the annular stop face is selected in order to seat one or more elastic retaining rings.
8. (Currently amended) An electric starter according to claim 6, wherein the positioning groove is axially separated from the splines of the shaft of the starter drive assembly by a conically shaped segment of the shaft, the diameter (D1) of the side of the splines being less than the diameter (D2) near the front face of the positioning groove.
9. (Currently amended) An electric starter according to claim 4, wherein the self-disengaging coupling device consists of a freewheel.
10. (New) An electric starter according to claim 7, wherein the positioning groove is axially separated from the splines of the shaft of the starter drive assembly by a conically shaped segment of the shaft, the diameter (D1) of the side of the splines being less than the diameter (D2) near the front face of the positioning groove.